

places said operational amplifier in a charge integration mode during a second non-overlapping time period.

Remarks

I. Summary of the Examiner's Objections

In the Office Action mailed September 30, 2002, the Examiner subjected claims 1-46 of the application to a restriction requirement. On page 2 of the aforementioned Office Action, the Examiner grouped claims 1-16 as drawn to a position sense interface; claims 17-25 as drawn to an integrated circuit; claims 26-38 as drawn to a position sense interface; and claims 42-46 as drawn to a microelectrical structure.

II. Election

Applicant hereby elects to proceed with the invention as defined in group 1 (claims 1 - 16) in the instant application. Claims 26 - 46 are withdrawn but not cancelled.

III. Response to Rejection

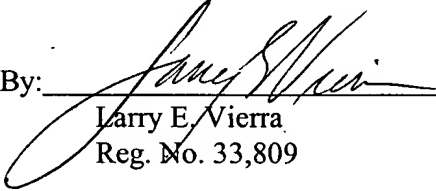
Applicant respectfully submits that due to the amendment of the claims provided herein the restriction as to claims 17 – 25 is now moot.

In view of the foregoing, Applicant respectfully asserts that the present application is in condition for examination. Should the Examiner have any questions with regard to the instant response, the Examiner is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

Date: December 2, 2002

By: _____


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Appendix
Amended Claims

17. The interface of claim 1, wherein at least one of said sense capacitors is formed as part of a micromechanical structure formed in or on said substrate; and

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said position detection circuitry is formed in and on said substrate, and includes an operational amplifier and a negative feedback circuit.

Q1 Cont.
18. The interface of claim 17 wherein said negative feedback circuit is an input-sensing, output driving feedback circuit.

19. The interface of claim 17 wherein said micromechanical structure includes a first proof mass and a second proof mass.

20. The interface of claim 19 wherein said first proof mass comprises said first sense capacitor and said second proof mass comprises said second sense capacitor.

21. The interface of claim 20 wherein said first and second sense capacitors are coupled in said feedback circuit.

22. The interface of claim 20 wherein said first proof mass and said second proof mass are connected so as to electrically decouple said sense capacitors.

23. The interface of claim 17 wherein said micromechanical structure includes:
a substrate;
at least one proof-mass; and
wherein said first and second electrically decoupled sense capacitors comprise four independent terminals, each electrically decoupled sense capacitor comprising an independent terminal on said proof mass, and an independent terminal on said substrate.

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24. The interface of claim 17 wherein said operational amplifier includes at least a first input, and a first signal applied to said feedback circuit places said operational amplifier in unity gain feedback during a first non-overlapping time period.

25. The interface of claim 17 wherein a second signal to said feedback circuit places said operational amplifier in a charge integration mode during a second non-overlapping time period.
